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EXAMINER

SPAHN, GAY

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/613,570	QUINN, GERRY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Gay Ann Spahn	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 1, 11, 12, 15, and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Allowable Subject Matter*

The indicated allowability of claims 1-10 and 12 is withdrawn in view of Applicant's admitted prior art described on page 1, paragraph no. [0004] through page 4, paragraph no. [0018] and illustrated in prior art Figs. 1-3 (hereinafter referred to as "Applicant's admitted prior art") and the newly discovered reference to Kolb (U.S. Patent No. 3,576,977). Rejections based on Applicant's admitted prior art and the newly cited reference to Kolb follow below.

### *Drawings*

The drawings are objected to because:

the meaning of the arrowheads in Figs. 1-5 is not clear. See 37 C.F.R. § 1.84(r) wherein it states:

(r) Arrows.

Arrows may be used at the ends of lines, provided that their meaning is clear, as follows:

- (1) On a lead line, a freestanding arrow to indicate the entire section towards which it points;
- (2) On a lead line, an arrow touching a line to indicate the surface shown by the line looking along the direction of the arrow; or
- (3) To show the direction of movement.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

Art Unit: 3673

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The abstract of the disclosure is objected to because the second sentence beginning "A first seabed transponder . . ." on lines 2 to 3 of the Abstract is a long run-on sentence containing numerous semi-colons (i.e., similar to claim language format) and should be rewritten as separate sentences (i.e., the Abstract should be in narrative form). Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

- (1) page 3, line 1 of paragraph no. [0013], the word "are" should be --is--; and
- (2) page 3, line 2 of paragraph no. [0013], the word "are" should be --is--.

Appropriate correction is required.

### ***Claim Objections***

Claims 1, 11, 12, 15 and 16 objected to because of the following informalities: the British spelling of word "centreline" should be changed to --centerline-- (see claim 1, line 8; claim 11, line 12; claim 12, line 2; claim 15, line 10; claim 16, line 2) for consistency (i.e., claim 1, line 10 has the correct spelling).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of independent claim 1 recites that

In an offshore pipeline laying system, the pipeline being laid on the seabed by a surface laying vessel from a first position on the seabed to a second position on the seabed for making a connection at said second position to a subsea structure, and presenting a length (L) between the seabed and the laying vessel, a method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed, said method comprising the steps of . . .

and the preambles of independent claims 11 and 15 recite that

In an offshore pipeline laying system, the pipeline being laid on the seabed by a surface laying vessel from a first position on the seabed to a second position on the seabed, a method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed, the method comprising the steps of . . . .

Art Unit: 3673

These preambles appear to be mixing the statutory category of invention of "apparatus" (i.e., system) with the statutory category of invention of "process" (i.e., method) which is not permitted and which is confusing. The preambles should be reworded to make it clear that the claims are directed to method and not to apparatus or other statutory category.

Claim 1, line 8, recites "the pipelay route" and claim 1, line 10, and claim 3, lines 1-2, recites "the pipeline route" which is confusing because it is not clear if the two terms are referring to the same thing or not. The same terminology should be used consistently throughout the claims. The examiner suggests changing the two occurrences of the term "pipeline route" to --pipelay route-- since it is more consistent with other claim terminology such as "the pipelay route centerline."

Claim 1, line 4, the recitation of the pipeline "presenting a length (L) between the seabed and the laying vessel" is unclear because it is not the straight line length between the surface laying vessel and the seabed floor that is represented by reference character "L", but as defined in the specification, it is the "catenary length." Therefore, the examiner believes that the word --catenary-- should be inserted before the word "length" on line 4 of claim 1 in order to differentiate the catenary length (L) from "the length of pipeline required to be provided from the vessel to reach the second position on the seabed" recited in lines 5-6 of claim 1.

Claim 1, lines 10-11, recite the step of "installing a second seabed transponder on the pipeline route centerline spaced upstream from the first transponder at a distance (D') greater than (L)." It is unclear just to recite the reference character "(L)"

Art Unit: 3673

without reciting any words to explain what "(L)" is. Although reference characters may be placed in claims if they are put in parentheses, they can't be substituted for the words which the reference character designates. Therefore, the examiner suggests changing "(L)" in line 11 of claim 1 to --the catenary length (L) of the pipeline--.

Claim 1, line 11, the recitation of "the first transponder" is confusing because a first seabed transponder has been introduced on line 8 and it is not clear that the recitation of "the first transponder" is referring back to the "first seabed transponder" particularly in light of the fact that in line 14, a first pipeline transponder is introduced. For clear antecedent basis, the examiner suggests that "the first transponder" in line 11 be changed to --the first seabed transponder-- for clarity and consistency.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Applicant's admitted prior art described on page 1, paragraph no. [0004] through page 4, paragraph no. [0018] and illustrated in prior art Figs. 1-3 (hereinafter referred to as "Applicant's admitted prior art").

As to claim 11, Applicant's admitted prior art discloses that in an offshore pipeline laying system (Figs. 1-3), wherein the pipeline (shown as having length "L") is being laid

Art Unit: 3673

on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, a method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing first and second seabed transponders (any seabed transponder of the first array and any seabed transponder of the second array) along the pipelay route (the examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be "along the pipelay route"), the first seabed transponder being near said second position (the examiner deems any of the seabed transponders in the first array to be sufficiently close to the target position so as to be considered to be "near said second position");

determining the distance separating said first and second seabed transponders (see paragraph no. [0014]);

installing a pipe transponder on said pipeline (see Fig. 3 wherein squares denote pipe transponders); and

interrogating said second seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the seabed transponders are arranged sufficiently near the pipelay route centerline (the examiner deems any of the seabed transponders in the first array as being "sufficiently near the pipelay route") so that the respective distances separating said second seabed transponders and said pipe transponder can be used to establish



the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

As to claim 12, Applicant's admitted prior art discloses the method of claim 11 as discussed above, and Applicant's admitted prior art discloses the seabed transponders are arranged on the pipelay route centerline (the examiner deems that any of the seabed transponders in either the first and second arrays are sufficiently near the centerline of the pipelay route to be considered to be "arranged on the pipelay route centerline").

As to claim 13, Applicant's admitted prior art discloses the method of claim 11 as discussed above, and Applicant's admitted prior art further comprises the steps of:

installing a third seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be "along the pipelay route");

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and

interrogating said third seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

As to claim 15, Applicant's admitted prior art discloses that in an offshore pipeline laying system (Figs. 1-3), wherein the pipeline (shown as having length "L") is being laid

Art Unit: 3673

on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, a method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing a seabed transponder (any seabed transponder of the first or second arrays) along the pipelay route (the examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be "along the pipelay route");

installing a pipe transponder (see Fig. 3 wherein squares denote pipe transponders) on said pipeline (shown as having length "L"); and

interrogating said seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the seabed transponder is arranged sufficiently near the pipelay route centerline (the examiner deems any of the seabed transponders in the first array as being "sufficiently near the pipelay route") so that the respective distance separating said seabed transponder and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position on the seabed (see paragraph nos. [0016] and [0017]).

As to claim 16, Applicant's admitted prior art discloses the method of claim 15 as discussed above, and Applicant's admitted prior art discloses that the seabed transponder is arranged on the pipelay route centerline (the examiner deems that any of

Art Unit: 3673

the seabed transponders in either the first and second arrays are sufficiently near the centerline of the pipelay route to be consider to be "arranged on the pipelay route centerline").

As to claim 17, Applicant's admitted prior art discloses the method of claim 15 as discussed above, and Applicant's admitted prior art further comprises the steps of:

installing another seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be "along the pipelay route");

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and

interrogating said other seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art described on page 1, paragraph no. [0004] through page 4, paragraph no. [0018] and illustrated in prior art Figs. 1-3 (hereinafter referred to as "Applicant's admitted prior art") in view of Kolb (U.S. Patent No. 3,576,977).

As to claim 1, Applicant's admitted prior art discloses that in an offshore pipeline laying system (Figs. 1-3), the pipeline (shown as having catenary length "L") is laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed for making a connection at said second position to a subsea structure, and presenting a length between the seabed and the laying vessel (shown unnumbered at top of Figs. 1 and 3), a method for establishing the length of pipeline (shown as having length "L") required to be provided from the vessel (shown unnumbered at top of Figs. 1 and 3) to reach the second position (target position) on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing a first seabed transponder (any transponder of first array) near the pipelay route centerline at the second position (target position);

installing a second seabed transponder (any transponder of second array) near the pipeline route centerline spaced upstream from the first transponder at a distance (see Fig. 2) greater than the catenary length (L) of the pipeline;

Art Unit: 3673

establishing the positions of the first and second seabed transponders so as to determine the exact distance separating said first and second seabed transponders (see paragraph no. [0014]);

attaching a first pipe transponder (the squares in Fig. 3 represent pipe transponders) on the pipeline (shown as having catenary length "L") and laying the pipeline at the first position so that it will land close to the second seabed transponder (see Fig. 3);

interrogating the second seabed transponder and the first pipe transponder in a relative mode to establish the exact distance between them (see paragraph no. [0015]);

comparing the established distance with the distance separating the first and second seabed transponders to calculate the remaining length of pipeline required to reach the second position (see paragraph no. [0016]);

cutting the pipeline according to said remaining length (see paragraph no. [0017]);

welding the connector to the pipeline (see paragraph no. [0017]); and thereby laying the pipeline to the second position with the connector being at the second position (see paragraph no. [0017]).

However, Applicant's admitted prior art fails to explicitly disclose installing a first and second seabed transponder on the pipelay route centerline.

Kolb discloses discloses the installing transponders on the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more

Art Unit: 3673

particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for cutting undersea pipeline to length of Applicant's admitted prior art by placing the seabed transponders on the centerline of the pipelay route as taught by Kolb in order to minimize the stress on the pipeline and the pipe support structure.

As to claim 2, Applicant's admitted prior art in view of Kolb discloses the method of claim 1 as discussed above.

Applicant's admitted prior art in view of Kolb fails to explicitly disclose that the distance (D') is comprised between  $(L + 300 \text{ ft})$  and  $(L + 700 \text{ ft})$ .

However, it is well settled that improvement resulting from a change in size, proportion or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention. See *The Ward Machinery Company v. Wm. Staley Machinery Corporation*, 192 USPQ 505 (DC Md 1976).

Therefore, the examiner deems that it would have been an obvious expedient for one of ordinary skill in the art at the time the invention was made to have modified the method for cutting undersea pipeline to length resulting from Applicant's admitted prior art in view of Kolb by making the distance (D') between the first and second seabed transponders be between 300 to 700 feet greater than the catenary length (L) of the pipeline.

As to claim 3, Applicant's admitted prior art in view of Kolb discloses the method of claim 1 as discussed above, and Applicant's admitted prior art also disclose that a third seabed transponder is arranged on the pipeline route upstream from the second seabed transponder (the second array of seabed transponders shows numerous seabed transponders and the examiner deems the second seabed transponder to be one of the transponders in the second array that is closest to the first array and the third seabed transponder to be one of the transponders in the second array that is farthest from the first array so that the third seabed transponder is upstream of the second seabed transponder).

As to claim 4, Applicant's admitted prior art in view of Kolb discloses the method of claim 3 as discussed above, and Applicant's admitted prior art also discloses that a second pipe transponder is attached to the pipeline upstream from the first pipeline transponder (Fig. 3 shows three pipe transponders with a second being upstream of a first).

As to claim 5, Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above, and Applicant's admitted prior art also discloses that the distance between the first and second pipe transponders is shorter than the distance between the second and third seabed transponders (see Fig. 3).

As to claim 6, Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above, and Applicant's admitted prior art also discloses that the pipeline is laid so that the first and second pipe transponders are laid in between the second and third seabed transponders (see Fig. 3).

Art Unit: 3673

As to claim 7, Applicant's admitted prior art in view of Kolb discloses the method of claim 1 as discussed above, and Applicant's admitted prior art also discloses that another pipe transponder is attached to the pipeline to help the positioning of the connector at the second position (see paragraph no. [0017]).

As to claim 8, Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above.

Applicant's admitted prior art in view of Kolb fails to explicitly disclose that the second and third seabed transponders are spaced about 500 feet apart.

However, it is well settled that improvement resulting from a change in size, proportion or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention. See *The Ward Machinery Company v. Wm. Staley Machinery Corporation*, 192 USPQ 505 (DC Md 1976).

Therefore, the examiner deems that it would have been an obvious expedient for one of ordinary skill in the art at the time the invention was made to have modified the method for cutting undersea pipeline to length resulting from Applicant's admitted prior art in view of Kolb by making the second and third seabed transponders be spaced about 500 feet apart.

As to claim 9, Applicant's admitted prior art in view of Kolb discloses the method of claim 8 as discussed above.

Applicant's admitted prior art in view of Kolb fails to explicitly disclose that the first and second pipeline transponders are spaced about 300 feet apart.



However, it is well settled that improvement resulting from a change in size, proportion or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention. See *The Ward Machinery Company v. Wm. Staley Machinery Corporation*, 192 USPQ 505 (DC Md 1976).

Therefore, the examiner deems that it would have been an obvious expedient for one of ordinary skill in the art at the time the invention was made to have modified the method for cutting undersea pipeline to length resulting from Applicant's admitted prior art in view of Kolb by making the first and second pipeline transponders be spaced about 300 feet apart.

As to claim 10, Applicant's admitted prior art in view of Kolb discloses the method of claim 9 as discussed above, and Applicant's admitted prior art in view of Kolb also discloses that the pipeline is laid so that the first and second pipe transponders are laid in between the second and third seabed transponders (see Fig. 3 - the second array of seabed transponders shows numerous seabed transponders and the examiner deems the second seabed transponder to be one of the transponders in the second array that is closest to the first array and the third seabed transponder to be one of the transponders in the second array that is farthest from the first array so that the first and second pipe transponders are between the second and third seabed transponders).

As to claim 14, Applicant's admitted prior art discloses the method of claim 4 as discussed above, and Applicant's admitted prior art also discloses that a third pipe transponder is attached to the pipeline to help the positioning of the connector at the second position (see paragraph no. [0017]).

As to claim 11, Applicant's admitted prior art discloses an offshore pipeline laying system (Figs. 1-3), wherein pipeline (shown as having length "L") is being laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, a method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing first and second seabed transponders (any seabed transponder of the first array and any seabed transponder of the second array) along the pipelay route (the examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be "along the pipelay route"), the first seabed transponder being near said second position (the examiner deems any of the seabed transponders in the first array to be sufficiently close to the target position so as to be considered to be "near said second position");

determining the distance separating said first and second seabed transponders (see paragraph no. [0014]);

installing a pipe transponder on said pipeline (see Fig. 3 wherein squares denote pipe transponders); and

interrogating said second seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the respective distances separating said second seabed transponders and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

However, Applicant's admitted prior art may fail to explicitly disclose, depending upon how one of ordinary skill in the art would interpret "sufficiently near", that the seabed transponders are arranged sufficiently near the pipelay route centerline.

Kolb discloses that the seabed transponders are arranged sufficiently near the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for cutting undersea pipeline to length of Applicant's admitted prior art by placing the seabed transponders on the centerline of the pipelay route as taught by Kolb in order to minimize the stress on the pipeline and the pipe support structure.

As to claim 12, Applicant's admitted prior art in view of Kolb discloses the method of claim 11 as discussed above, and Applicant's admitted prior art in view of Kolb discloses that the seabed transponders are arranged on the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

As to claim 13, Applicant's admitted prior art in view of Kolb discloses the method of claim 11 as discussed above, and Applicant's admitted prior art in view of Kolb further comprises the steps of:

installing a third seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be "along the pipelay route");

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and

interrogating said third seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

As to claim 15, Applicant's admitted prior art discloses an offshore pipeline laying system (Figs. 1-3), wherein pipeline (shown as having length "L") is being laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, a method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing a seabed transponder (any seabed transponder of the first or second arrays) along the pipelay route (the examiner deems any of the seabed transponders in

Art Unit: 3673

the first and second arrays to be located sufficiently close to the pipelay route to be considered to be "along the pipelay route");

installing a pipe transponder (see Fig. 3 wherein squares denote pipe transponders) on said pipeline (shown as having length "L"); and

interrogating said seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the respective distance separating said seabed transponder and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position on the seabed (see paragraph nos. [0016] and [0017]).

However, Applicant's admitted prior art fails to explicitly disclose that the seabed transponders are arranged sufficiently near the pipelay route centerline.

Kolb discloses that the seabed transponders are arranged sufficiently near the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for cutting undersea pipeline to length of Applicant's admitted prior art by placing the seabed transponders on the centerline of the pipelay route as taught by Kolb in order to minimize the stress on the pipeline and the pipe support structure.

Art Unit: 3673

As to claim 16, Applicant's admitted prior art in view of Kolb discloses the method of claim 15 as discussed above, and Applicant's admitted prior art in view of Kolb further discloses that the seabed transponder is arranged on the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

As to claim 17, Applicant's admitted prior art in view of Kolb discloses the method of claim 15 as discussed above, and Applicant's admitted prior art in view of Kolb further comprises the steps of:

installing another seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be "along the pipelay route");

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and

interrogating said other seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,388,710 to Pecon, Jr. discloses a submarine cable tension telemetering system. U.S. Patent No. 3,860,900 to Scudder discloses a method of monitoring the position of towed under water apparatus. U.S. Patent No. 4,187,492 to Delignieres discloses a device for determining the relative position of elongate members towed behind a ship. U.S. Patent No. 4,037,189 to Bell et al. discloses a method and apparatus for determining the profile of an underwater pipeline. U.S. Patent No. 4,124,990 to Bell et al. discloses a method and apparatus for adjusting the tension of an underwater pipeline. U.S. Patent No. 3,512,125 to Raymond discloses an underwater acoustic telemetering system. U.S. Patent No. 6,354,764 to Brown discloses an apparatus for monitoring the laying of an underwater pipeline. U.S. Patent No. 4,780,863 to Schoepf discloses a removable power supply for an ocean bottom seismometer. U.S. Patent No. 4,669,067 to Roberts discloses a method and apparatus for locating a submerged marine streamer. U.S. Patent No. 2,142,135 to Lawton discloses a telemetric apparatus for determining the tension on and angular direction of submarine cables during cable laying operations. U.S. Reissue Patent No. RE. 28,410 to Cox et al. discloses a tension pipe laying method. U.S. Patent No. 4,789,269 to

Art Unit: 3673

Ayers et al. discloses a winged pipeline. U.S. Patent No. 4,238,824 to DeMatte et al. discloses a line length navigation system. U.S. Patent No. 5,691,903 to Racette, III discloses an integrated cable navigation and control system. U.S. Patent No. 6,532,192 to Reid discloses a subsea positioning system and apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Thursday, 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on (571)-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. However, this fax phone number is being phased out and will no longer be in service after September 15, 2005. The new fax phone number beginning on July 15, 2005 will be (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should



Art Unit: 3673

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Gas*  
Gay Ann Spahn, Patent Examiner  
July 25, 2005



**MICHAEL SAFAVI**  
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**ART UNIT 354**